(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



- 1 Mai de 1800 (10 A 1800) (10 A 1800)

(43) International Publication Date 1 July 2004 (01.07,2004)

PCT

(10) International Publication Number WO 2004/055992 A1

(51) International Patent Classification7:

H03M 13/29

(21) International Application Number:

PCT/EP2002/014320

(22) International Filing Date:

16 December 2002 (16.12.2002)

(25) Filing Language:

English

(26) Publication Language:

English

- (71) Applicant (for all designated States except US): TELE-COM ITALIA S.P.A. [IT/IT]; Piazza degli Affari, 2, 1-20123 Milano (IT).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): ETTORRE, Donato [IT/IT]; Telecom Italia S.p.A., Via G. Reiss Romoli, 274, 1-10148 Torino (IT).
- (74) Agents: GIANNESI, Pier, Giovanni et al.; Pirelli S.p.A., Viale Sarca, 222, I-20126 Milano (IT).

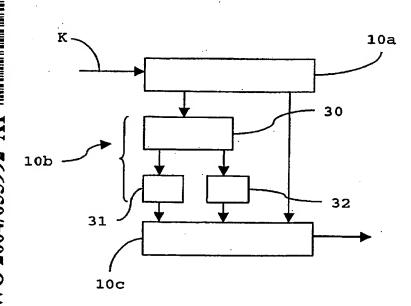
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ADDRESSES GENERATION FOR INTERLEAVERS IN TURBO ENCODERS AND DECODERS



(57) Abstract: An arrangement for generating addresses for interleaving/de-interleaving sequences $(X_1, X_2, X_3,$..., X_K) including a given number (K) of items, wherein each value for said given number (K) identifies a corresponding set of interleaving parameters (R, C, p, v). The arrangement comprises at least one memory unit (22) wherein a plurality of records are stored, each record being indicative of a respective set of parameters (R, C, p, v) corresponding to at least one value for said given number (K). Sets of interleaving parameters (R, C, p, v) are thus available in the memory unit (22) to be promptly and directly retrieved for all possible values of said given number of items (K). A preferred use is in turbo encoders /decoders for advanced telecommunications applications such as UMTS.

WO 2004/055992 A1